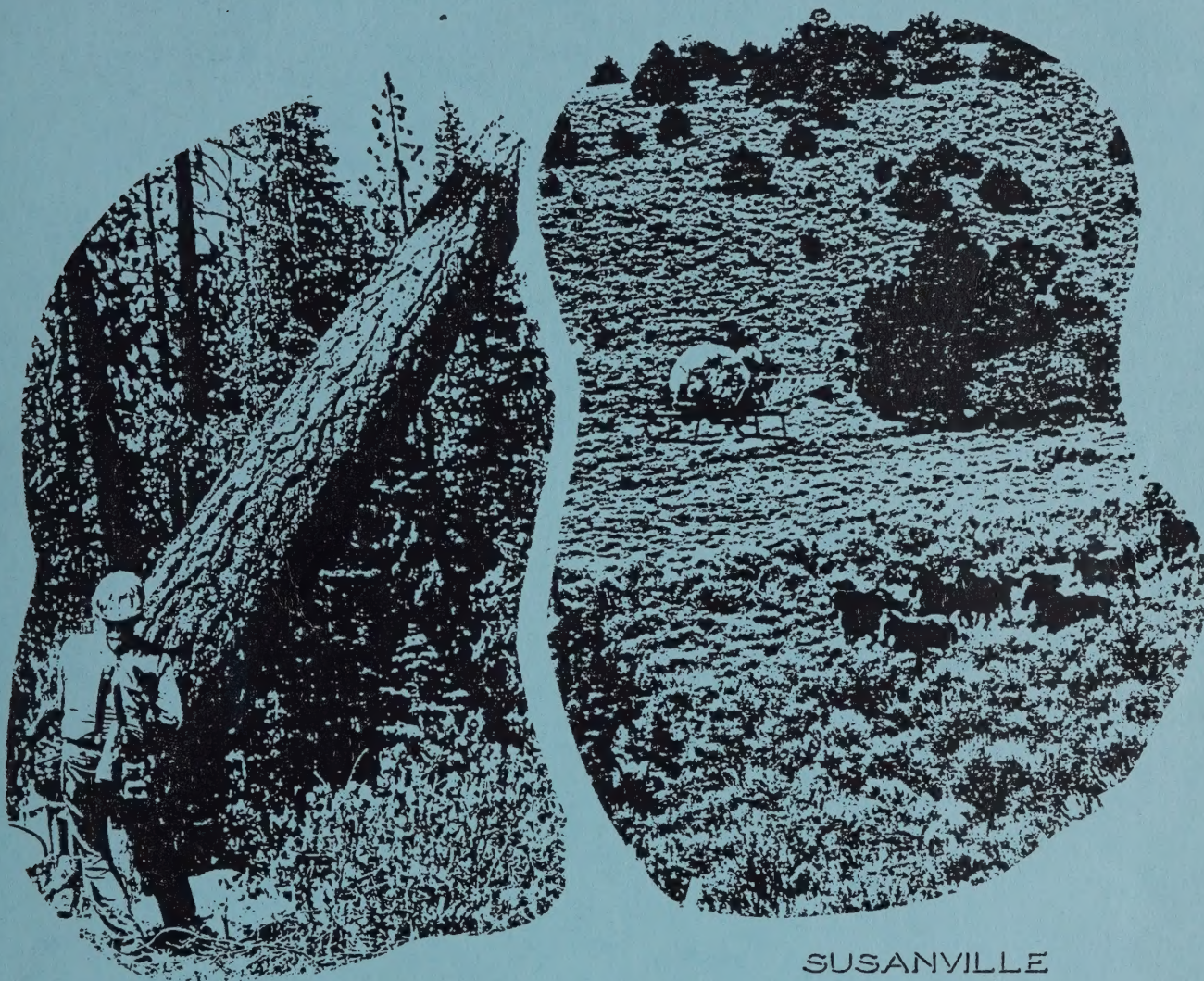




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# FEDERAL LAND MANAGEMENT



LASSEN NATIONAL FOREST

SUSANVILLE  
BUREAU OF  
LAND MANAGEMENTHD  
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L377  
1982





## FEDERAL LAND MANAGEMENT

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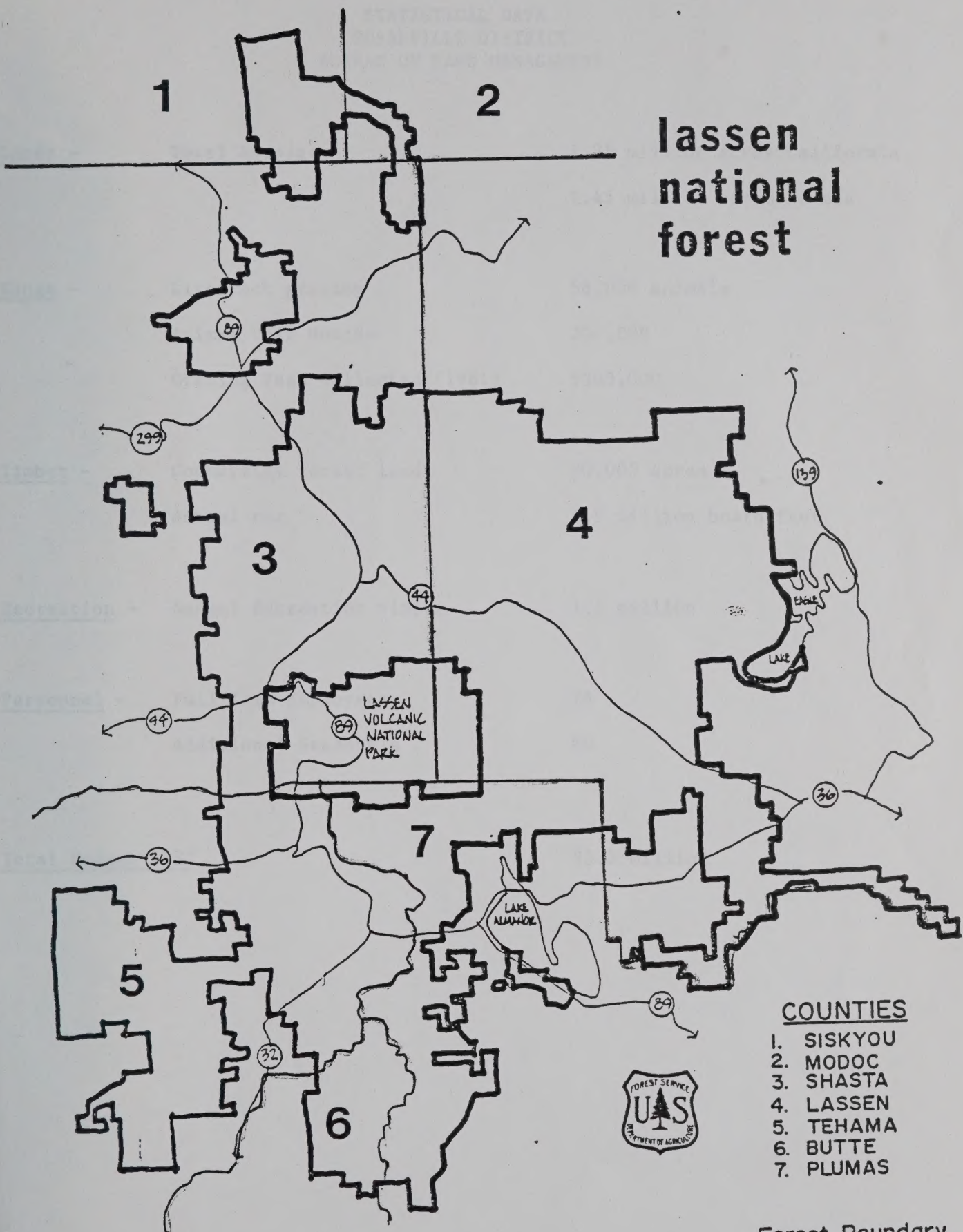
## TABLE OF CONTENTS

	Page
Statistical Data Lassen National Forest.....	1
Lassen National Forest Map.....	2
Statistical Data Susanville BLM.....	3
Susanville District BLM Map.....	4
Susanville Interagency Dispatch Center.....	5
Rails-to-Trails Project.....	6
Timber Management Program Lassen National Forest.....	8
Wendel Hybrid Power Plant.....	10
Eagle Lake.....	12
Map.....	13
Oil and Gas Leasing.....	14
Geothermal Leasing.....	15
Wild Horse and Burro Management Susanville District.....	17

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# lassen national forest

## COUNTIES

1. SISKIYOU
2. MODOC
3. SHASTA
4. LASSEN
5. TEHAMA
6. BUTTE
7. PLUMAS

Forest Boundary

County Boundaries



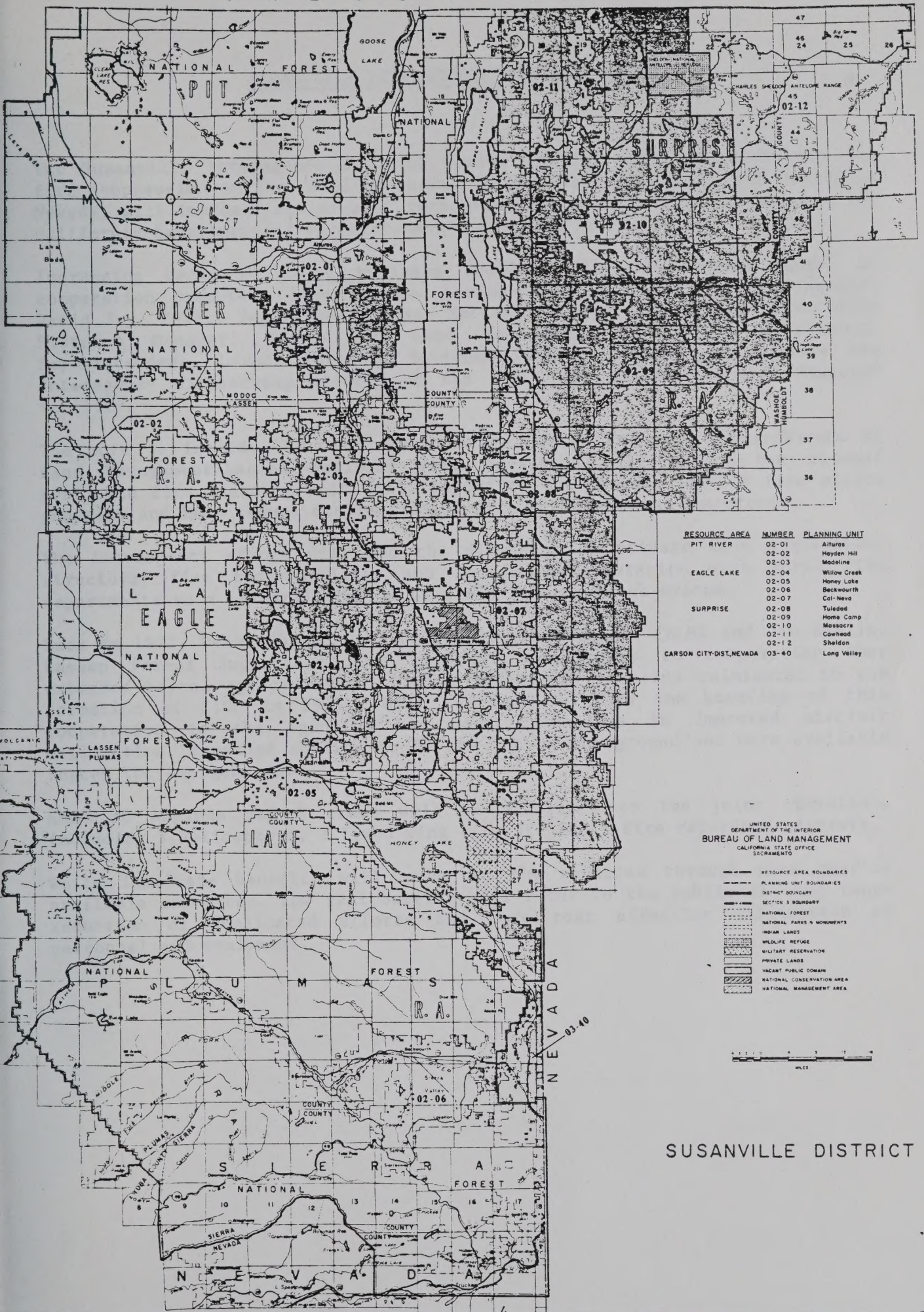


STATISTICAL DATA  
SUSANVILLE DISTRICT  
BUREAU OF LAND MANAGEMENT

<u>Lands</u> -	Total Acreage	1.35 million acres California
		1.45 million acres Nevada
<u>Range</u> -	Livestock grazing	58,000 animals
	Animal Unit Months	204,000
	Grazing Fees Collected (1981)	\$303,000
<u>Timber</u> -	Commercial forest land	30,000 acres
	Annual cut	1.9 million board feet
<u>Recreation</u> -	Annual Recreation visits	1.5 million
<u>Personnel</u> -	Full Time Employees	78
	Additional Seasonals	80
<u>Total Budget 1982</u>		\$3.3 million







RESOURCE AREA	NUMBER	PLANNING UNIT
PIT RIVER	02-01	Alturas
	02-02	Hayden Hill
	02-03	Maddeline
EAGLE LAKE	02-04	Willow Creek
	02-05	Honey Lake
	02-06	Beckwourth
	02-07	Col-Neva
SURPRISE	02-08	Tulead
	02-09	Homa Camp
	02-10	Massacre
	02-11	Cowhead
	02-12	Sheldon
CARSON CITY-DIST, NEVADA	03-40	Long Valley

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
CALIFORNIA STATE OFFICE  
SACRAMENTO

- RESOURCE AREA BOUNDARIES
- PLANNING UNIT BOUNDARIES
- DISTRICT BOUNDARY
- SECTION 3 BOUNDARY
- NATIONAL FOREST
- NATIONAL PARKS & MONUMENTS
- INDIAN LANDS
- WILDLIFE REFUGE
- MILITARY RESERVATION
- PRIVATE LANDS
- VACANT PUBLIC DOMAIN
- NATIONAL CONSERVATION AREA
- NATIONAL MANAGEMENT AREA

0 1 2 3 4  
MILES

SUSANVILLE DISTRICT







## SUSANVILLE INTERAGENCY DISPATCH CENTER

The Susanville Interagency Dispatch Center (SIDC), with responsibility for fire suppression on five million acres, in Northeast California and Northwest Nevada, will increase its area of responsibility to 6½ million acres when the California Department of Forestry merges dispatch forces in June of 1982.

Increasing costs of doing business coupled with the "common sense" of cooperation prompted Lloyd Keefer, Lassen-Modoc Unit State Forest Ranger; David Jay, Forest Supervisor, Lassen National Forest; Rex Cleary, Susanville District Manager, Bureau of Land Management; and Bill Stephenson, Superintendent, Lassen Volcanic National Park to extend and improve the interagency dispatching efforts at the SIDC, the present Federal dispatch facility.

The move to include CDF with the existing Lassen National Forest/Bureau of Land Management/Lassen National Park operation will insure the closest available fire fighting unit will respond to the average 350-400 fire starts annually and help reduce duplication of fire equipment and resources.

The interagency effort will add the dimension of private land protection, structural fire responsibility and increased cooperation with rural fire departments to a primarily public wildland fire dispatch system.

Back in 1972, Dean Bibles, Susanville District Manager (BLM) and Jim Berlin, Lassen Forest Supervisor, had personal commitments to cooperation that extended beyond agency lines. Their interagency concerns culminated in the formation of SIDC in 1973. Over the last 8 years the benefits of this cooperation to the agencies has been tremendous in improved aircraft utilization, expanded ability to do the job on the ground and more available forces for emergencies.

Some 30 engines and 8 crews will be available to the joint operation, including 3 helicopters, 2 fixed wing aircraft and 1 fire retardant aircraft.

While immediate benefits will occur to the agencies through more readily available resources, the real benefit will occur to the public in long range reduction of duplicated efforts and more cost effective utilization of personnel and equipment.





## RAILS TO TRAILS

### Susanville - Westwood Trail

#### Project Description

The Susanville - Westwood Rails to Trails project is an outstanding recreational opportunity that is being realized thanks to strong community interest and support. The project consists of converting 25 miles of a abandoned canyon and woodland railroad grade to a public multiple use recreational trail.

Trail conversion of the abandoned railroad involved land acquisition, bridge decking, and railing, trail tread stabilization and recreation management. In the six years since initial work began on the project much has been accomplished.

#### Past

- 1978 - Railroad officially abandoned.
- 1979 - BLM/USFS Land Acquisition composite approved by Heritage Conservation and Recreation Service.
  - Widespread public support for project from local government, organizations, individuals.
- 1980 - Funding for trail right-of-way acquisition via Land and Water Conservation Fund monies.
  - Acquisition of 5.3 miles of Southern Pacific owned right- of-way.
- 1981 - Acquisition of 100 acres of trailhead. Rails and ties removed by a Southern Pacific contract.
  - Two 60 foot railroad bridges decked for trail use.

#### Present

- BLM/USFS are developing a joint trail management plan to direct trail management and development.
- Visitor use has increased following removal of rails and ties. BLM estimates 15,000 visitor days/year.
- Volunteers are being organized for trail maintenance and visitor contact work.

#### Future

- Land exchange with Beaty and Associates to be completed FY 83 - continuous 25 mile public trail will be established.
- Trail and trailhead improvements:
  - deck and railing on nine remaining railroad bridges.
  - stabilize eroded segments of trail.
  - construct trailhead facilities - parking, toilets, picnic sites.





- Develop and maintain trail with "no cost" labor where ever possible through:
  - community volunteer projects
  - California National Guard assistance
  - Antelope Conservation Center inmate crews
  - BLM and USFS fire crews
- Secure funding for project development, operation, and maintenance.  
Primary costs will be for:
  - bridge decking and railing materials
  - access road improvement to trailheads
  - basic trailhead facilities - toilets, parking, picnic sites
  - visitor service/area patrol personnel:
    - 1 paid employee
    - Sheriff's department support













LASSEN NATIONAL FOREST  
TIMBER MANAGEMENT PROGRAM

The Lassen National Forest Timber Management Program is based on a plan which became effective 7/1/75. Under present Forest Service policy we are committed to managing the renewable resource and a non-declining basis. Principle activities are timber sale preparation, timber harvest administration, reforestation, timber stand improvement, providing firewood, and managing the Christmas tree permit system.

There is a total of 746,303 acres of commercial forest land. The potential yield is 149 million board feet per year. Some additional volume is available in the special, marginal and standard components. We are committed to a reforestation and timber stand improvement program to assure maintaining the timber harvest on a non-declining basis.

At the end of fiscal year 1981 the accrued potential yield in the standard component was 929 million board feet. The amount sold was 985 million board feet. An additional 117 million board feet was sold in the special marginal and unregulated components. On the date there was 655 million board feet of uncut timber in 91 outstanding contracts held by 38 Purchasers.

Although the volume of timber sold each year has been relatively stable, the volume has risen from \$22,351,199 in fiscal year 1976 to a high of \$64,528,605 in fiscal year 1980. The value of timber sold in fiscal year 1981 was \$48,151,533. The value of timber harvested went from \$10,548,322 in fiscal year 1976 to a high of \$25,057,375 in fiscal year 1977. The value of timber harvested in fiscal year 1981 was \$17,828,799. Seven counties (Butte, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Tehama) receive a share of the timber receipts from lands administered by the Lassen National Forest.

The Small Business share of timber from the Lassen is 17 percent. To maintain this ratio it has been necessary to sell some sales each year on a set-aside basis.

All salvage sales of 2 million board feet or less financed with salvage sale funds, tractor loggable and with no specified road construction are sold as special salvage timber sales with preferential award to firms with 25 or fewer employees. During fiscal year 1981 seven million board feet in small sales was sold under this program to 22 Purchasers.

The use of firewood from the Lassen National Forest for heating homes has increased from 1,466 permits in fiscal year 1976 to 5,247 in FY 1981. Permits are for a maximum of 10 cords each.

Each fall areas are designated where individuals may cut their own Christmas trees. Last fiscal year 2,978 permits were issued for this purpose.

It can be seen that high and increasing demands are being made on the Lassen's renewable resources. We perceive this as a challenge that will require us to hone our management practices for maximum efficiency.





1) POTENTIAL YIELD VS SOLD VOLUME

COMMERCIAL FOREST LAND	746, 303 ACRES
POTENTIAL YIELD STANDARD COMPONENT	149 MMBF/YR
ACCRUED POTENTIAL YIELD (STD COMPONENT)	929 MMBF
SOLD (STD. COMPONENT)	985 MMBF
PLUS (SPECIAL, MARGINAL & UNREGULATED)	117 MMBF

UNCUT UNDER CONTRACT 10/1/81	
91 CONTRACTS W/38 PURCHASERS	655 MMBF

2) VALUE OF TIMBER SOLD AND HARVESTED

<u>FY</u>	<u>SOLD</u>	<u>HARVESTED</u>
1976	\$22,351,199	\$10,548,322
1977	\$28,105,170	\$25,057,375
1978	\$38,366,303	\$23,421,631
1979	\$50,428,560	\$20,619,814
1980	\$64,528,605	\$21,805,125
1981	\$48,151,533	\$17,828,799

3) SEVEN COUNTIES SHARE IN RECEIPTS

BUTTE  
LASSEN  
MODOC  
PLUMAS  
SHASTA  
SISKIYOU  
TEHAMA

4) FIREWOOD PERMITS

<u>FY</u>	<u>NO. PERMITS</u>
1976	1,466
1977	2,542
1978	3,033
1979	2,714
1980	4,234
1981	5,247

5) CHRISTMAS TREE PERMITS

<u>FY</u>	<u>NO. PERMITS</u>
1981	3,094
1982	2,997





WENDEL HYBRID POWER PLANT

In 1977, Alexander Black, Chairman of the Board, Geo Products Corporation, asked the Lassen National Forest if biomass could be used to raise the temperature of geothermal water from about 300°F to about 800°F for high pressure steam power generation. Also, he asked if a 55 million watt plant needed up to one-third million dry tons of fuel, would that volume be annually available? The replies were very positive that forest slash and other land management biomass residues contained high heat energy and that the supply within an economic hauling area of 60 to 100 miles was probably four times the estimated need. Geo Products owns and leases lands at the Wendel KGRA.

Known high temperature geothermal resources that are hot enough for direct generation of power are limited. The Geyser area of Sonoma County is a primary U.S. example, where nearly 100 MWe are generated today. However, medium temperature areas with water in the 200°F to 300°F range are almost common in the west. Such energy sources have been used for direct space heating and agriculture crop drying. The City of Susanville is now installing a system to heat buildings with 170°F geothermal water. Compared to the total supply, there is only limited use of low and medium temperature water. Exploration of geothermal on Lassen National Forest lands is expected in the near future. The Lassen KGRA is rated by the U.S. Geological Survey as favorable for high temperatures.

Forest and range biomass residues can yield 12 to 14 million BTU's per ton when fired at low moisture content and depending somewhat on the part of the plant and species. The developing bio energy program can rely on residues not useful for higher value products. Actual production will depend upon the volume of geothermal water available.

Excess biomass in over dense stands and activity slash exists on tens of millions of acres of federal, state and private lands. Heretofore, such material was a negative value. The land management effects of such fuels can be easily recognized.

Wood alone is often used to fuel power plants. There are over 2,000 in the U.S. today. However, typical wood fuel is up to 60 percent moisture and energy recovery is only about 9 million BTU's per ton. This is only 70% of the projected energy recovery at Wendel. The difference is using geothermal heat to pre-dry the fuel and to preheat combustion air and mineral free boiler feed water. This is a hybrid concept where combining two more or less limited resources yields a highly efficient system.

A three party agreement was signed on September 28, 1979, by the California Department of Water Resources, the Forest Service and Geo Products Corporation, to start feasibility studies. DWR needs significant amounts of electricity to operate the State Water Resources Development System. Geo Products would manage the plant. With certain funding assistance from Federal Department of Energy, the three parties have now progressed through an extensive biomass inventory of





the area and are well along on a contract design of the power plant. State Department of Gas and Oil has completed a CEQA assessment to license the geothermal wells. Lassen County is scheduled to complete Land Use Permitting. The first production well has been drilled, and testing of water from 5,300 feet is underway.

The remaining significant problem to private financing of this power plant is how to assure investors that the necessary biomass raw materials will be made available. This is not a question of available volume but one of long term commitments to sell at current market values. Economics are favorable all the way from forest harvesting to power generation. Land management benefits and environmentally clean alternate energy should make it possible to commit residues.





## Eagle Lake

Eagle lake, located 15 miles northwest of Susanville in Lassen County, is California's second largest natural lake. At its higher stages, Eagle Lake has an area of nearly 30,000 acres and maximum depth of 100 feet.

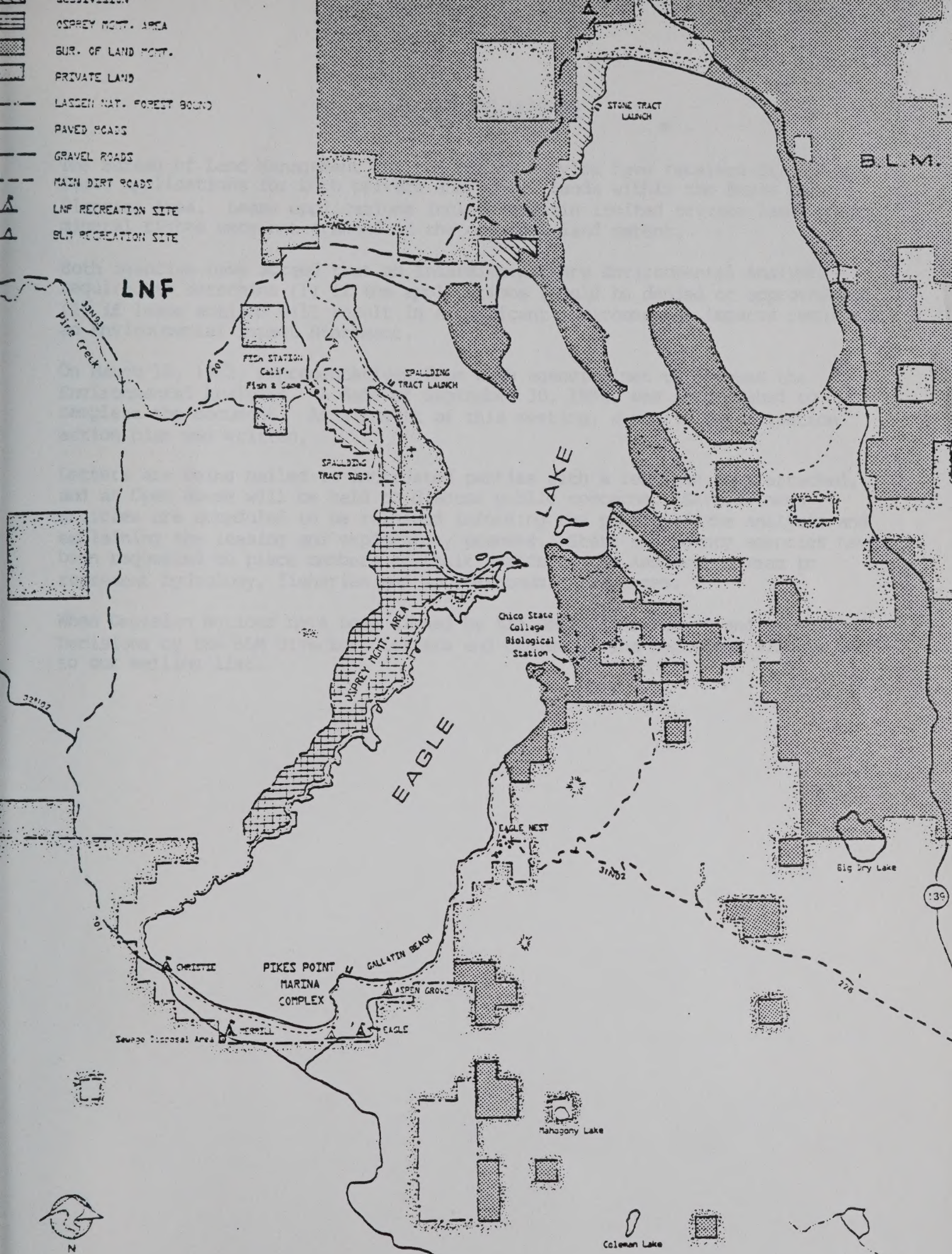
In geological terms, Eagle Lake is relatively recent. It appears to have been formed by a lava flow across the source of Willow Creek. Situated in a closed basin with no surface outlet, the water has become mineralized. The northern and eastern flanks push into semi-desert juniper-sagebrush lands, while the tall pines of the mountain forest border the south and west edges. Because of this variation, Eagle Lake is abundant in wildlife and natural beauty.

Following is a list of current issues and concerns related to the sensitive Eagle Lake area.

- |                         |                            |
|-------------------------|----------------------------|
| a) Water Quality        | f) Noise                   |
| b) Wildlife             | g) Fisheries               |
| c) Recreation Resources | h) Development             |
| d) Cultural Resources   | i) Geothermal Exploration  |
| e) Visual Quality       | j) Oil and Gas Exploration |













## OIL AND GAS LEASING

The Bureau of Land Management and the Forest Service have received oil and gas lease applications for both private and public lands within the Eagle Lake Planning Area. Lease applications include certain limited private lands where mineral rights were not granted in the original land patent.

Both agencies have agreed that an Interdisciplinary Environmental Analysis is required to determine (1) if the applications should be denied or approved and (2) if lease actions will result in significant environmental impacts requiring an Environmental Impact Statement.

On March 18, 1982, representatives from both agencies met to discuss the Environmental Analysis. A date of September 30, 1982, was established to complete the document. As a result of this meeting, a public participation action plan was written.

Letters are being mailed to interested parties with a response form attached, and an Open House will be held to discuss public concerns. Several news articles are scheduled to be released informing the public of the analysis and explaining the leasing and exploratory process. State and County agencies have been requested to place members of their staffs on the Assessment Team to represent hydrology, fisheries and socio-economic resources.

When Decision Notices have been signed by the Regional Forester and Records of Decisions by the BLM Director, letters and copies of the Decisions will be sent to our mailing list.





Geothermal Energy Development Fact Sheet  
Lassen National Forest (Updated April, 1982)

I. What is Geothermal Energy?

Geothermal energy is heat, stored in the earth's crust, that is recoverable using current technology. It must be within a drillable depth and have a conductor medium such as water or steam.

II. Why Develop Geothermal Energy?

A. The obvious answer is that energy is needed to sustain our standard of life styles. Geothermal stream heat can generate electricity, and hot water can be used for heating homes, hot houses and other uses.

B. Another reason is that legislation has been passed by Congress directing that Federal lands are available for utilization of the mineral resources in the same manner as surface resources are developed and utilized.

III. What Rules Guide the Development Process on Federal lands? Who is Responsible?

A. The Geothermal Stream Act of 1970 is the basic implementing act.

B. The USDI Code of Federal Regulations (CFR), Chapter II, Title 30 and 43 details implementing actions for the act.

C. USDI Secretarial Order 2948 directs that: 1) There will be orderly and timely development. 2) The environment will be protected. 3) The government will receive fair market value for the resource. (The minimum is \$1/acre of lease area for 5 years increasing by \$1 for the next 5 years of the lease. A royalty of 10-15% for sale of energy. Fifty percent is returned to the states for geothermal development through grants to counties.)

D. The Geothermal Resources Operating Orders (GRO) prescribe the practices to be followed from exploration through development. (There are currently seven sets of orders.)

E. A Memorandum of Understanding between the Secretary of Interior and the Secretary of Agriculture outlines the areas of responsibilities of each involved agency. This MU was updated December, 1981.

The Bureau of Land Management (BLM) received applications and issues leases for all Federal lands.

F. The Geothermal Resource Lease sets the terms of the Agreement between the Federal Government and the approved lessee. The New Minerals Management Services (USDI) has assumed responsibility from the US Geologic Service to administer the leases.





G. The laws, regulations and policies of Forest Service (FS) guide the FS in their analysis of lease applications request, and forms the basis for giving or denying consent for the BLM to issue a lease. Special mitigation measures for the lease agreement may be suggested so as to carry out the FS responsibilities.

#### IV. What is the History of the Geothermal Leasing Program on the Lassen National Forest?

A. Studies started in 1978. Public issues and management concerns were developed through written material mailed to various interested parties and by internal discussions. Summary of comments finished 9/79.

B. August 6, 1980, a Program Environmental Assessment (EA) was sent to public for comment. Result was a rewrite which was mailed to the public in July 81. Although formal request for input was not asked, Forest received about ten letters.

C. October 1981, it was agreed to rewrite program EA and add lease area specific EA's. Public was notified of rewrite on 9/25/81.

D. December 30, 1981, Regional Forester sent Decision Notices giving consent to BLM to issue 56 non-competitive leases and to put LKGRA lands up for bidding.

Copies of Program EA and Decision Notices were mailed during the 1st week of January 1982.

E. Appeals were made by the State Resource Agency concerning the KGRA and lease sites near the Lassen Boundary and Eagle Lake. An appeal concerning these and all other lease sites was made by the Sierra Club Legal Defense Fund.

F. Following two high level technical review meetings, the Regional Forester issued revised decision notices affecting leases near the Park and Eagle Lake. (Decisions issued on March 17, 1982) Those decisions concerning leases near the Park were a) recommending long term modeling and monitoring b) that all lessees are advised that all post-lease operations will be subject to environmental review c) no leasing within one mile of the Park's southern boundary.

The decision notices pertaining to the Eagle Lake Planning Area recommends a) no surface occupancy within one mile of the lake's shoreline b) notifying lessees that all surface disturbing activities require a permit from the Minerals Management Service and approval from the California Water Quality Control Board and the Air Pollution Control District.

Copies of the Decision Notices were mailed to our Geothermal mailing list on March 21st. At this time the decisions are in a new appeal period.

Copies of the Environmental Assessment and the Decision Notices are available at the SO and all District Offices.

If you have questions, contact Tom Beard and Jake Jacobson in the SO.





## WILD HORSE AND BURRO MANAGEMENT

### Susanville District

On December 15, 1971, the Wild Horse and Burro Act was signed by President Nixon and designated as Public Law 92-195. This act provided for the protection, management, and control of wild free-roaming horses and burros roaming public lands administered by the Bureau of Land Management and U. S. Forest Service.

At the present time, approximately 2,400 wild horses and burros roam on the Susanville District. Through the Bureau's Land Use Planning process, it has been determined that the district can support about 1,100 animals in harmony with other forms of wildlife and domestic livestock grazing. To reach this goal, the district has been gathering excess animals (as funding allows) since 1977.

Susanville is the home of the BLM's state wide gathering and adoption crew. In addition to gathering and adopting animals on the Susanville District, the crew has gathered animals on the Modoc National Forest, the Inyo National Forest, the California Desert District of BLM, and the Navy's China Lake Naval Weapons Center.

A certain amount of uncertainty shadows the program this year with the increased adoption fees in effect to make the program more cost effective, and the recently proposed legislation to amend the Wild Horse and Burro Act (S.2183 and H.R. 5825).

Sanctuary History

On December 15, 1971, the Wild Horse and Range Act was signed by President Nixon and designated as Public Law 92-197. This act provided for the protection, management, and control of wild free-ranging horses and burros residing on public lands administered by the Bureau of Land Management and U.S. Forest Service.

At the present time, approximately 1,600 wild horses and burros roam on the Klamath National Forest. Through the Bureau's long term planning process, it has been determined that the district can support about 1,100 animals in permanent wild horse forms of wildlife and logistic livestock grazing. In such this goal, the district has been authorized, current animals are loading allowed along

Sanctuary to the home of the BLM's state wide gathering and adoption crew. In addition to gathering and adopting animals on the Klamath National Forest, the crew has gathered animals on the Indian National Forest, the Inyo National Forest, the California Desert District of BLM, and the Nevada State Lands Department.

A certain amount of uncertainty shadows the program this year with the increased adoption fees in effect to meet the program needs and objectives, and the recently proposed legislation to amend the Wild Horse and Burro Act (S. 1181 and H.R. 1231).

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